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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR(S)	:	Edward Enyedy
TITLE	:	**WEAR RESISTANT DRIVE ROLLER FOR WIRE FEEDING MECHANISM**
APPLICATION NO.	:	10/616,351
FILED	:	July 9, 2003
CONFIRMATION NO.	:	1545
EXAMINER	:	Evan H. Langdon
ART UNIT	:	3654
LAST OFFICE ACTION	:	January 28, 2005
ATTORNEY DOCKET NO.	:	LEEE 2 00308

TRANSMITTAL OF
APPEAL BRIEF UNDER 37 C.F.R.§41.37

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Notification of Non-Compliant Appeal Brief of December 29, 2005, Applicant transmits herewith one (1) compliant copy of APPEAL BRIEF UNDER 37 C.F.R.§41.37 for the above-referenced patent application. Payment for the filing of this Appeal Brief ($500.00) was previously authorized to be charged to a Credit Card on September 21, 2005.

Respectfully submitted,

FAY, SHARPE, FAGAN,
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Date: Jan 18, 2006

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CERTIFICATE OF EXPRESS MAILING

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Date: 1-18-06

Audrey M. Dragony

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Audrey M. Dragony Date: 1-18-06

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APPEAL BRIEF UNDER 37 C.F.R. §41.37

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is in furtherance of the Notice of Appeal that was filed on July 22, 2005 and received by the U.S. Patent and Trademark Office on July 27, 2005.

The fees required under 37 C.F.R. §41.20 and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying Transmittal of Appeal Brief.

Appellant files herewith an Appeal Brief in connection with the above-identified application wherein claims 1-24 were finally rejected in the Final Office Action of January 28, 2005. What follows is Appellant's Appeal Brief in accordance with 37 C.F.R. §41.37.

TABLE OF CONTENTS

I. REAL PARTY IN INTEREST (37 C.F.R. §41.37(c)(1)(i))

The assignee of this application, Lincoln Global, Inc., is the real party in interest. The assignment by the inventors to Lincoln Global, Inc. is recorded in the U.S. Patent Office at Reel 014270, Frame 0229.

II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. §41.37(c)(1)(ii))

There are no related appeals or interferences.

III. STATUS OF CLAIMS (37 C.F.R. §41.37(c)(1)(iii))

All pending claims, i.e., claims 1-24, have been finally rejected in the Office Action dated January 28, 2005. In particular, claims 1 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kokaji et al. (U.S. Patent No.4,268,872). Claims 1 and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by McBride (U.S. Patent No. 3,756,760). Claims 2-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kokaji et al. Claims 7-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McBride in view of Kokaji et al. Claims 1-5, 9-18 and 22-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ullman (U.S. Patent No. 3,392,896) in view of Kokaji et al. Claims 6-8 and 19-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ullman in view of Kokaji et al. and further in view of McBride.

Claim 25 has been withdrawn.

Appellants appeal the rejection of all the pending claims, including claims 1-24. A correct copy of claims 1-24 appears in the Appendix attached hereto.

IV. STATUS OF THE AMENDMENTS (37 C.F.R. §41.37(c)(1)(iv))

No amendments were made after the January 28, 2005 mail date of the Office Action finally rejecting all claims. Accordingly, the claims examined in the final Office Action are the same as those presented in the attached Appendix. There were no claims amendments submitted with the Notice of Appeal.

V. **SUMMARY OF THE INVENTION (37 C.F.R. §41.37(c)(1)(v))**

A concise explanation of the subject matter defined in each of the independent claims involved in the appeal (i.e., claims 1, 12, and 13) is provided in the paragraphs that follow.

The present invention is directed toward new and improved drive rollers for use in wire feed mechanisms. With reference to Figures 1-3, in accordance with one aspect (claim 1), a drive roller (36) is provided for use on a wire feeding mechanism (10) to advance a continuous length of wire (18) (See page 6, lines 22-24). The drive roller (36) includes a hub (52) rotatably received on the wire feeding mechanism (10) (See page 7, lines 22-26). The hub (52) has an axis and an outer surface (54) extending circumferentially about the axis (Id.). A plating (56) is on the outer surface (54) and extends circumferentially thereabout (Id.).

With continued reference to Figures 1-3, in accordance with another aspect (claim 12), a drive roller (36) for use on a wire feed mechanism (10) is provided to advance a continuous length of wire (18) (See page 6, lines 16-24). The drive roller (36) includes a hub (52) having an axis and an outer surface (54) extending circumferentially about the axis (See page 7, lines 22-26). A plating (56) is on the outer surface (54) extending circumferentially thereabout and tangentially and compressively contacting an associated continuous length of wire (18) (Id.).

Again with reference to Figures 1-3, in accordance with yet another aspect (claim 13), a wire feeding mechanism (10) is provided for advancing a continuous length of wire (18) along a pathway (12) (*See page 6, lines 16-24*). The wire feeding mechanism (10) includes a housing (30) having two roller supports (44,46) each rotatable about a corresponding axis transverse to the pathway (12) (*Page 7, lines 10-14*). The roller supports (44,46) are on opposite sides of the pathway (12) and are driveably engaged with each other (*Page 7, lines 15-20*). A drive roller (36,38) is on each roller support (44,46) for rotation therewith and has a roller axis coaxial with the axis of the corresponding roller support (44,46). Each drive roller (36,38) includes a hub (52) having an outer surface (54) extending circumferentially about the roller axis (*Page 7, line 22-26*). One of a plating and a coating (56) is on the outer surface (54) (*Id.*). Said one of a plating and a coating (56) of each of the drive rollers (36,38) is tangentially and

compressively contacting a continuous length of wire (18) therebetween such that the wire (18) is advanced along the pathway (12) in response to the rotation of the drive rollers (36,38) (*Page 8, lines 12-18*).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. §41.37(c)(1)(vi))

A concise statement of each ground of rejection presented for review is as follows.

(1) Whether claim 1 is anticipated under 35 U.S.C. § 102(b) by Kokaji et al.

(2) Whether claim 1 is anticipated under 35 U.S.C. § 102(b) by McBride.

(3) Whether claim 1 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(4) Whether claim 2 is unpatentable under 35 U.S.C. § 103(a) over Kokaji et al. or unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(5) Whether claim 3 is unpatentable under 35 U.S.C. § 103(a) over Kokaji et al. or unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(6) Whether claim 4 is unpatentable under 35 U.S.C. § 103(a) over Kokaji et al. or unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(7) Whether claim 5 is unpatentable under 35 U.S.C. § 103(a) over Kokaji et al. or unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(8) Whether claim 6 is anticipated under 35 U.S.C. § 102(b) by McBride or unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al. and further in view of McBride.

(9) Whether claim 7 is unpatentable under 35 U.S.C. § 103(a) over McBride in view of Kokaji et al. or unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al. and further in view of McBride.

(10) Whether claim 8 is unpatentable under 35 U.S.C. § 103(a) over McBride in view of Kokaji et al. or unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al. and further in view of McBride.

(11) Whether claim 12 is anticipated under 35 U.S.C. § 102(b) as being anticipated by Kokaji et al.

(12) Whether claim 12 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(13) Whether claim 15 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(14) Whether claim 16 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(15) Whether claim 17 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(16) Whether claim 18 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

(17) Whether claim 19 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al. and further in view of McBride.

(18) Whether claim 20 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al. and further in view of McBride.

(19) Whether claim 21 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al. and further in view of McBride.

(20) Whether claim 13 is unpatentable under 35 U.S.C. § 103(a) over Ullman in view of Kokaji et al.

VII. ARGUMENTS (37 C.F.R. §41.37(c)(1)(vii))

A. Independent Claim 1 and Dependent Claims 9-11 Are In Condition For Allowance

1. The Examiner's Rejection of Claim 1 As Being Anticipated By Kokaji et al. Must Be Reversed

Claim 1, after being amended in Applicant/Appellant's Amendment of December 2, 2004, calls for a hub rotatably received on a wire feeding mechanism. Notwithstanding this Amendment, the Examiner continues to reject claim 1 as being anticipated by Kokaji et al. (hereinafter "Kokaji"). In the final Office Action of January 28, 2005, the Examiner indicates that claim 1 is rejected as being anticipated by Kokaji

"for the reasons set forth in Paragraph 9) of the previous Office Action," referring to the Office Action of September 24, 2004. *Office Action of January 28, 2005* at pg. 2.

In the Office Action of September 24, 2004, the Examiner indicated that the preamble of claim 1 calling "for use on a wire feeding mechanism" was a suggested use and therefore "of no patentable significance." *Office Action of September 24, 2004* at pg. 4. It appears that the Examiner has not taken into account the amendment to claim 1 which includes a limitation calling for the hub to be rotatably received on a wire feed mechanism. To clearly illustrate this, claim 1 is reproduced in full:

> 1. A drive roller for use on a wire feeding mechanism to advance a continuous length of wire, said drive roller comprising:
>
> ***a hub rotatably received on the wire feeding mechanism***, said hub having an axis and an outer surface extending circumferentially about said axis; and
>
> a plating on said outer surface and extending circumferentially thereabout.

(emphasis added). As is readily evident from the reproduced claim, the limitation calling for a hub rotatably received on a wire feeding mechanism is not merely contained in the preamble, but is found in the body of the claim wherein the element of a hub is introduced.

Applicant/Appellant submits that Kokaji fails to disclose this limitation, namely, a hub rotatably received on a wire feeding mechanism, as called for in claim 1. As brought to the Examiner's attention, Kokaji is directed toward a magnetic duplicator which, using Xerography methods, is said to automatically and quickly obtain numerous copies form a single original copy. *See Kokaji* at Col. 1, lines 6-10. Accordingly, as might be expected, Kokaji fails to disclose a hub rotatably received on a wire feeding mechanism. Without disclosure of each element of claim 1, Kokaji cannot be used to anticipate claim 1. *See* MPEP §2131 ("A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a

single prior art reference." *citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).)

Accordingly, for at least these reasons, Applicant/Appellant submits that the Examiner's anticipation rejection of claim 1 by Kokaji must be reversed.

2. The Examiner's Rejection of Claim 1 As Being Anticipated By McBride Must Be Reversed

As discussed in the preceding section, claim 1 explicitly calls for a hub rotatably received on a wire feeding mechanism, a limitation apparently overlooked by the Examiner. In addition to rejecting claim as anticipated by Kokaji, the Examiner also rejects claim 1 as anticipated by McBride. Specifically, in the final Office Action, the Examiner indicates that claim 1 is rejected as being anticipated by McBride "for the reasons set forth in Paragraph 10) of the previous Office Action," again referring to the Office Action of September 24, 2004. *Office Action of January 28, 2005* at pg. 2.

In the Office Action of September 24, 2004, the Examiner indicated that the preamble of claim 1 "again is of no patentable significance." *Office Action of September 24, 2004* at pg. 4. As discussed in the preceding section, it appears that the Examiner has not taken into account the amendment to claim 1 which includes a limitation calling for the hub to be rotatably received on a wire feed mechanism. This limitation is not merely contained in the preamble, but is found in the body of the claim wherein the element of a hub is introduced.

McBride does not disclose a hub rotatably received on a wire feeding mechanism, as called for in claim 1. Rather, McBride is directed toward equipment used for producing plastic sheet material frequently used by the greeting card industry. See *McBride* at Col. 1, lines 1-5. Accordingly, for same reasons that Kokaji et al. cannot be used to reject claim 1, Applicant/Appellant submits that the Examiner's anticipation rejection of claim 1 by McBride must be reversed.

3. The Examiner's Rejection of Claim 1 As Being Obvious Over Ullman in View of Kokaji Must Be Reversed

In the final Office Action, the Examiner rejected claim 1 over Ullman in view of Kokaji stating that claim 1 is rejected over this combination "for the reasons set forth in Paragraph 14) of the previous Office Action," again referring to the Office Action of September 24, 2004. *Office Action of January 28, 2005* at pg. 2. The pertinent portion of paragraph 14 (i.e., the paragraph referenced by the Examiner) relating to claim 1 states:

> Ullman discloses an old and well known double-grooved wire drive roller 6, 8. It would have obvious to one of ordinary skill in the art to provide the outer surface of the rollers with a hardness plating or coating especially in view of the teaching of Kokaji et al that a hardness coating on the outer surface of a drive roller would prevent damage to and prolong the life of the roller.

Office Action of September 24, 2004 at pg. 5. Responding to Applicant/Appellant's assertion of an improper combination due to the references being directed toward nonanalogous art, the Examiner stated:

> [T]he references are directed to the feeding of material using drive rollers. One of ordinary skill in the art would look to all drive rollers no matter what materials are being fed and look to various ways of making the drive roller harder in order to withstand wear.

Office Action of January 28, 2005 at pg. 3.

a. The Ullman – Kokaji Combination Is Improper Due to the References Being Directed Toward Non-Analogous Art and Because Motivation to Combine Is Missing

In Applicant/Appellant's December 2, 2004 Amendment, Applicant argued that Ullman and Kokaji were improperly combined because (1) the references are directed toward nonanalogous art and (2) motivation to combine the references is lacking (i.e., the Examiner has not made the required *prima facie* showing for obviousness). *See Amendment of December 2, 2004* at pgs. 7-8. In response to Applicant's arguments, the Examiner states "Applicant's arguments filed 12/6/2004 have been fully considered but they are not persuasive. *Office Action of January 28, 2005* at pg. 3.

However, as shown and reproduced in the preceding paragraph, the Examiner appears to have only addressed Applicant's argument concerning the combination being improper due to the references being directed toward nonanalogous art. There does not appear to be a refutation of Applicant's argument concerning the absence of a motivation to combine the references of Ullman and Kokaji. In any case, Applicant/Appellant continues to assert that the references are improperly combined because (1) they are directed toward nonanalogous art and (2) the references are improperly combined because motivation to combine the references is entirely lacking.

b. Ullman and Kokaji Are Directed Toward Nonanalogous Art

It is asserted that, because Kokaji is directed toward a magnetic duplicator and Ullman is directed toward feeding devices for feeding two wires at a time along parallel paths, the references are directed toward nonanalogous art and therefore are not properly combined in rejecting claim 1. The problem addressed in Kokaji is overcoming the defects in a conventional duplicator by applying the methods of latent image formation and development to a duplicator to automatically produce numerous copies form one document. *See Kokaji* at Col. 1, lines 48-52. This is far removed from the problem with which claim 1 is concerned, namely improving the wearability and/or life span of wire feeder drive rollers. Thus, one skilled in the art would no look to Kokaji to improve the drive rollers of Ullman.

The rollers 41,42 in Kokaji are first and foremost fixing rollers employed in duplicator 10 (i.e., a copier) for fixing a toner image onto record paper (e.g., a sheet of copy paper). Thus, the primary function of the rollers 41,42 is to "fix" a toner image transferred from the recording drum 21 to record paper 25 when passing between the rollers 41,42. *See Kokaji* at Col. 4, lines 14-36. The fixing rollers 41,42 are subjected to high pressures, specifically for improving the fixing effect of the toner onto the record paper 25. *See Kokaji* at Col. 13, lines 2-41. While lower fixing roller 42 is said to be a drive roller arranged in parallel with recording drum 21 (Col. 13, lines 46-48), there is no indication that plating the rollers with hard chromium (as mentioned at Col. 13, lines 14-17) is done to prevent damage to and prolong the life of the roller. More likely, such plating is done to enhance the fixing effect of toner onto sheet of copy paper passing thereby.

Even if done to prevent damage to and/or prolong the life of the rollers 41,42, the chromium plating is likely to considered useful as a result of the high pressures under which the rollers operate, not useful for reducing wear associated with transporting a flimsy sheet of paper, such as record sheet 25. It is doubtful that a sheet of paper itself causes much wear on either of the rollers 41,42. Thus, there is no indication that the chromium plating added to rollers 41,42 is used to solve the problem with which the invention of claim 1 is concerned. The drive roller of claim 1 is used to advance a continuous length of wire and is not concerned with fixing a toner image on the wire. The Kokaji rollers 41,42 are used to fix a toner image on a sheet of paper 25. No one skilled in the art of wire feeding mechanisms employing drive rollers (such as depicted in Ullman) would look toward rollers used in a copier machine to primarily fix a toner image on a sheet of paper under pressure and secondarily move the sheet of paper thereby. Thus, Applicant/Appellant asserts that Ullman and Kokaji are directed toward nonanalogous art and therefore are not properly combinable.

c. Motivation to Combine Ullman and Kokaji Is Entirely Missing and Has Not Even Been Asserted By the Examiner

Applicant/Appellant submits that no adequate motivation to combine the references has been provided by the Examiner (and that none exists). In the final Office

Action, the Examiner does not appear to have addressed Applicant's argument concerning the lack of motivation (necessary for an obviousness rejection) to combine Kokaji and Ullman. In the September 2004 Office Action, the Examiner did state that one of ordinary skill in the art would provide the rollers with a hardness plating or coating especially in view of the teaching of Kokaji that a hardness coating would prevent damage to and prolong the life of the roller.

However, a detailed review of Kokaji does not indicate that hard chromium plating is added to the fixing rollers 41,42 to prevent damage to and prolong the life of the roller, particularly as relates to roller 42 being a drive roller. As far as the roller 42 relates to driving (driving record paper 25, likely a sheet of flimsy copy paper), there is no indication that the plating is added to prevent damage to and prolong the life of the roller 42 due to wear caused by driving record paper 25. Rather, as discussed above, the plating is more likely intended to improve the roller as relates to its primary function: fixing, via pressure, a toner image on record sheet 25. Accordingly, Applicant/Appellant submits that one skilled in the art would not look toward (i.e., would not be motivated to adapt) a plated fixing roller that primarily fixes a toner image to a sheet of paper, but also serves to drive the sheet of paper along a path through a copier, to improve the drive roller of a wire feeder that is used to advance a continuous length of wire (e.g., the drive roller of Ullman). Wire is much more likely to wear on a drive roller than is paper, thus the need to plate the wire feeding mechanism drive roller is not fairly related to plating of fixing rollers used to fix toner images.

In any case, the Examiner has provided no reference, or other evidence to support his conclusion that it would be obvious to one skilled in the art to modify the teachings of Ullman with the teachings of Kokaji. Applicant/Appellant asserts that the Examiner has impermissibly concluded that claim 1 is obvious in view of the combination of Ullman and Kokaji without any legitimate support on the record.

A *prima facie* case of obviousness is not established absent proper motivation. Simply because the wire feeder rollers of Ullman could be modified to include the chromium plating disclosed in Kokaji, motivation is not present. Further, according to MPEP § 2144.01, the "fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness."

Merely because the claimed elements are individually found in the prior art, it does not necessarily follow that it would be obvious to combine the elements from different prior art references. *See* MPEP § 2141.01 *citing Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). Consequently, absent a motivation to combine and modify, it is irrelevant that the elements and/or limitations may be individually or separately known in the prior art. Clearly, the Examiner is motivated to combine the teachings of Ullman with the teachings of Kokaji for no other reason than to arrive at the invention of claim 1. This is a classic example of impermissible hindsight.

Accordingly, for the reasons discussed in the preceding paragraphs, Applicant/Appellant submits that the Examiner's obviousness rejection of claim 1 must be revered.

4. Dependent Claims 9-11 Should Be Allowed When Claim 1 Is Allowed

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claims 9-11 are in condition for allowance simply because these claims depend from claim 1.

B. Dependent Claim 2 Is In Condition For Allowance

1. Dependent Claim 2 Should Be Allowed Due to Its Dependency From Claim 1

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claim 2 is in condition for allowance simply because this claim depends from claim 1.

2. The Examiner's Rejections of Dependent Claim 2 As Being Obvious Over Kokaji et al. and Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Dependent claim 2 calls for the plating of claim 1 to be a chrome alloy. In the final Office Action, the Examiner rejected claim 2 as being obvious over Kokaji "for the reasons set forth in Paragraph 12) of the previous Office Action" and as being obvious

over Ullman in view of Kokaji "for the reasons set forth in Paragraph 14) of the previous Office Action," referring to the Office Action of September 24, 2004 as the previous Office Action. *Office Action of January 28, 2005* at pg. 2. In the previous Office Action, the Examiner asserts that to make the chrome plating a chrome alloy "would have been an obvious design consideration to one of ordinary skill in the art since most metals are not completely made of one material when used as coatings or plating and the use of such alloys are old and well known to persons of ordinary skill in the art." *Office Action of September 24, 2004* at pg 4.

Applicant/Appellant challenged and continues to challenge the Examiner's obviousness rejection concerning claim 2. As discussed above, a *prima facie* case of obviousness requires the Examiner (i.e., it's the Examiner's burden) to show motivation. *See* MPEP § 706.02(j). The Examiner has not given an adequate reason to demonstrate why one skilled in the art would provide a wire feeding drive roller with a plating, particularly a plating that is a chrome alloy. Merely stating that this is an obvious design consideration is not enough. The Examiner must show why this limitations are "obvious design considerations" and why such a design consideration is obvious to one skilled in the art.

Since such a showing is absent, Applicant/Appellant submits that the Examiner's rejection of dependent claim 2 over the references of record must be reversed.

C. Dependent Claim 3 Is In Condition For Allowance

1. Dependent Claim 3 Should Be Allowed Due to Its Dependency From Claim 1

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claim 3 is in condition for allowance simply because this claim depends from claim 1.

2. The Examiner's Rejections of Dependent Claim 3 As Being Obvious Over Kokaji et al. and Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Dependent claim 3 calls for the chrome plating of claim 2 to have about 96% and about 97% chromium. In rejecting claim 3, the Examiner makes the conclusory allegation that "the amount of chrome in such an alloy ... would have been obvious to one or ordinary skill in the art for the same reason. . *Office Action of September 24, 2004* at pg 4. The final Office Action merely refers back to the pertinent paragraph of the September Office Action. *Office Action of January 28, 2005* at pg. 2.

Applicant/Appellant challenges the Examiner's obviousness rejection concerning this claim. As already discussed, a *prima facie* case of obviousness requires the Examiner to show motivation. This is the Examiner's burden. *See* MPEP § 706.02(j). The Examiner has yet to give an adequate reason to demonstrate why one skilled in the art would provide a wire feeding drive roller with a plating, particularly a plating that is a chrome alloy having between about 96% and about 97% chromium. Merely stating that this is an obvious design consideration is not enough. The Examiner must show why these limitations are "obvious design considerations" and why such a design consideration is obvious to one skilled in the art.

Since such a showing is absent, Applicant/Applicant submits that the rejection of dependent claim 3 must be reversed.

D. Dependent Claim 4 Is In Condition For Allowance

1. Dependent Claim 4 Should Be Allowed Due to Its Dependency From Claim 1

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claim 4 is in condition for allowance simply because this claim depends from claim 1.

2. The Examiner's Rejections of Dependent Claim 4 As Being Obvious Over Kokaji et al. and Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Dependent claim 4 calls for the plating of claim 1 to have a hardness of about Rockwell C 70 to about Rockwell C 72. In the final Office Action, the Examiner rejected claim 4 as being obvious over Kokaji "for the reasons set forth in Paragraph 12) of the previous Office Action" and as being obvious over Ullman in view of Kokaji "for the reasons set forth in Paragraph 14) of the previous Office Action," referring to the Office Action of September 24, 2004 as the previous Office Action. *Office Action of January 28, 2005* at pg. 2. In the previous Office Action, the Examiner states that:

> With respect to claim 4, note that the hardness of the roller of Kokaji et al. is preferably more than 61 RC, see the paragraph beginning on line 11 of col. 13. Thus is would appear to have been obvious to one of ordinary skill in the art to make the roller of Kokaji et al. of at least 70 RC, slightly harder than what is disclosed by Kokaji et al. since one of ordinary skill in the art would have known how to make such rollers harder to prevent damage thereto.

Office Action of September 24, 2004 at pgs. 4-5.

Applicant/Appellant readily concedes that Kokaji mentions that fixing rollers 41,42 should have a high hardness, preferably higher than $60H_{RC}$. *Kokaji* at Col. 13, lines 11-13. However, Kokaji further states, in an example, the surface of the fixing rollers is hardened into hardness of more than 61 H_{RC} and the fixing roller surface is plated with hard chromium. *Kokaji* at Col. 13, lines 14-17 (emphasis added). There is no mention of the specific hardness of the hard chromium plating. Thus, the use of Kokaji to reject dependent claim 4 (as opposed to indicating that claim 4 contains allowable subject matter) is disingenuous. Kokaji only specifies a hardness as relates to the surface of the rollers 41,42. This surface is said to be further plated with a hard chromium. No mention of a specific hardness, such as about Rockwell C 70 to about Rockwell C 72 (as called for in claim 4) is found anywhere in Kokaji.

Accordingly, for at least this reason, the Examiner's rejection of claim 4 must be reversed.

E. Dependent Claim 5 Is In Condition For Allowance

1. Dependent Claim 5 Should Be Allowed Due to Its Dependency From Claim 1

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claim 5 is in condition for allowance simply because this claim depends from claim 1.

2. The Examiner's Rejections of Dependent Claim 5 As Being Obvious Over Kokaji et al. and Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Dependent claim 5 calls for the plating of claim 1 to have a thickness of about 0.0004 inches to about 0.0006 inches. The Examiner, again relying on the reasoning of the Office Action of September 24, 2004, rejects claim 5 as obvious over Kokaji alone and separately Ullman in view of Kokaji. Specifically, the Examiner notes that a protective coating on drum 21 of Kokaji may be in the range of 10 microns, citing Col. 7, lines 52-59 of Kokaji. *Office Action of September 24, 2004* at pg. 5. The Examiner further asserts that "it would have been obvious to one of ordinary skill in the art to make the plating on the drive roller 42 of a thickness as claimed [sic] as further taught in Kokaji et al that the thickness of the hardness plating of the recording drum 21 should be about the same thickness [sic]." *Id.* Applicant/Appellant respectfully disagrees.

As discussed in Column 3, lines 45-68 and Column 4, lines 1-36 of Kokaji, the recording drum 21 disclosed in Kokaji is used to receive a latent image thereon from magnetic head 22. The latent image typically corresponds to a image to be produced on a sheet of print media, such as record paper 25 (often the image to be produced is copied from an original document). The latent image is then developed by toner development device 23 which essentially applies toner to the latent image thereby creating a toner image on the drum 21. The toner image is then transferred to the

record paper 25. The record paper 25 with the toner image thereon then passes through fixing rollers 41,42 wherein the toner image is permanently affixed (or "fixed") to the record paper prior to the record paper being delivered to an output tray. Before receiving another latent image on the drum 21, residual toner is removed from the drum 21 by a cleaning blade 46 and the latent image is erased by erasing head 48.

The drum 21 is not a driving roller, i.e., it does not drive the record sheet 25 along path 27. Thus, the discussion concerning a protecting film on the drum 21 (at column 7, lines 52-57) is not relevant to the fixing rollers 41,42, including fixing roller 42 which also serves as a drive roller for record paper 25. Accordingly, Applicant/Appellant submits that the Examiner's rejection of claim 5 must be reversed.

F. Dependent Claim 6 Is In Condition For Allowance

1. Dependent Claim 6 Should Be Allowed Due to Its Dependency From Claim 1

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claim 6 is in condition for allowance simply because this claim depends from claim 1.

2. The Examiner's Rejections of Dependent Claim 6 As Being Anticipated by Kokaji et al. and Being Obvious Over Ullman in View of Kokaji and Further in view of McBride Must Be Reversed

Dependent claim 6 calls for the plating of claim 1 to be a nickel coating. In the final Office Action, the Examiner rejected claim 6 as being anticipated by Kokaji "for the reasons set forth in Paragraph 10) of the previous Office Action" and as being obvious over Ullman in view of Kokaji and further in view of McBride "for the reasons set forth in Paragraph 15) of the previous Office Action," again referring to the Office Action of September 24, 2004 as the previous Office Action. *Office Action of January 28, 2005* at pg. 2. In referenced paragraph 10, the Examiner states that "McBride discloses a drive roller 18 having an outer protective thin plating of nickel, col. 2, lines 65-67." *Office Action of September 24, 2004* at pg. 4. In referenced paragraph 15, the Examiner states that "[i]t would have been obvious to one of ordinary skill in the art to provide the

outer surface of the drive rollers of Ulman [sic] with a protective coating of nickel in view of the teaching of McBride." *Id.* at pg. 6.

Applicant/Appellant first notes that McBride fails to disclose a drive roller on a wire feeding mechanism and therefore cannot be an anticipating reference to claim 6. Applicant further asserts that the triple combination of references asserted to purportedly render claim 6 obvious is improper. As already discussed, Applicant/Appellant asserts that the combination of Ullman and Kokaji is improper for at least the reasons of being directed toward nonanalogous art and lacking motivation to combine. The arguments presented above in this regard are applicable to the combination of these references as applied to claim 6 and, accordingly, are incorporated into this paragraph by reference. The addition of McBride does not render the combination proper, but rather improperly adds a third reference. As with Ullman and Kokaji, Applicant/Appellant asserts that McBride is directed toward nonanalogous art (moving a plastic sheet material used by the greeting card industry is not remotely similar to wire feeding mechanisms) and asserts that motivation to add McBride is lacking and has not been provided by the Examiner. Accordingly, the rejection of claim 6 must be reversed.

G. Dependent Claim 7 Is In Condition For Allowance

1. Dependent Claim 7 Should Be Allowed Due to Its Dependency From Claim 1

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claim 7 is in condition for allowance simply because this claim depends from claim 1.

2. The Examiner's Rejections of Dependent Claim 7 As Being Obvious Over McBride in View of Kokaji and Being Obvious Over Ullman in View of Kokaji and Further in View of McBride Must Be Reversed

Dependent claim 7 calls for the nickel plating of claim 6 to have a hardness of approximately Rockwell C 60. In the final Office Action, the Examiner rejected claim 7

stating that "[i]t would have been obvious to one of ordinary skill in the art to make the hardness of the roller of McBride approximately Rockwell C 60 as recited in claim 7 . . . as taught by Kokaji et al, col. 13, lines 13 . . . . Such . . . hardness' of plated rollers are well within the purview and knowledge of one or ordinary skill in the art." *Office Action of January 28, 2005* at pg. 5.

Applicant/Appellant respectfully asserts that the Examiner's logic is flawed and that the combination fails to render claim 7 obvious. More specifically, the examiner cites to McBride for its purported disclosure of a drive roller having an outer protective thin plating of nickel (citing col. 2, lines 65-67 of McBride). Then, the Examiner disingenuously cites to Kokaji to support the Examiner's contention that it would be obvious to one of ordinary skill to make the hardness of the roller of McBride approximately Rockwell C 60 (citing col. 13, line 13 of Kokaji). The citation to Kokaji is disingenuous because Kokaji merely states that because fixing rollers 41,42 are subjected to a large load, their hardness should be high (preferably higher than 60HRC). (Col. 13, lines 11-13 of Kokaji).

Kokaji is not concerned with nickel plating and does not disclose a nickel plated drive roller. Any discussion of drive roller hardness in Kokaji has no bearing on the limitation of claim 7 which explicitly refers to a nickel plated drive roller and specifies a hardness of the nickel plating. In fact, Kokaji provides an example immediately following the section cited by the Examiner which states that "when alloy steel SKD-11 is used for the fixing rollers, surface is hardened into hardness of more than 61H_{RC}, and further it is plated with hard chromium. Thus, Kokaji is not concerned with the hardness of the plating and is certainly not concerned with the hardness of a nickel plating.

Accordingly, for at least this reason, the Examiner's rejection of claim 7 must be reversed.

In addition, as discussed in the preceding section, Applicant/Appellant asserts that the triple combination of references applied against claim 7 is improper. In particular, the three references are directed toward non-analogous art and motivation to combine the references (including combining Kokaji with McBride; Kokaji with Ullman; and McBride with Ullman and Kokaji) is lacking and has not been adequately shown by the Examiner.

Accordingly, for this additional reason, the Examiner's rejection of claim 7 must be reversed.

H. Dependent Claim 8 Is In Condition For Allowance

1. Dependent Claim 8 Should Be Allowed Due to Its Dependency From Claim 1

Provided the Examiner's rejections of claim 1 are overturned, Applicant/Appellant submits that claim 8 is in condition for allowance simply because this claim depends from claim 1.

2. The Examiner's Rejections of Dependent Claim 8 As Being Obvious Over McBride in View of Kokaji and Being Obvious Over Ullman in View of Kokaji and Further in View of McBride Must Be Reversed

Dependent claim 8 calls for the nickel plating of claim 6 to have a thickness of about 0.0001 inches to about 0.0030 inches. In the final Office Action, the Examiner rejected claim 8 stating that "[i]t would have been obvious to one of ordinary skill in the art to make . . . the thickness of about .0001 to .003 inches as recited in claim 8 as taught by Kokaji et al, . . . col. 7, line 54 . . . . Such thicknesses . . . of plated rollers are will within the purview and knowledge of one or ordinary skill in the art." *Office Action of January 28, 2005* at pg. 5.

Similar to the Examiner's rejection of claim 7, the Examiner first cites to McBride to purportedly show a nickel plating on a drive roller. Then, the Examiner cites to Kokaji to purportedly show plating having a thickness in the range specified by claim 8. However, as already discussed, Kokaji does not disclose or fairly suggest a nickel plating; thus, Applicant/Appellant submits it cannot be fairly used to show or suggest a nickel plating of a particular thickness, including within the range specified in claim 8. Moreover, the section of Kokaji cited by the Examiner (i.e., col. 7, line 54) relates to a plating provided on recording drum 21, not a plating provided on alleged drive rollers 41,42. The plating described in or near line 54 of column 7 is said to improve wear-

resistance of the recording drum 21, but, again, this drum is not the alleged drive rollers 41,42.

In addition, the Examiner has selectively (and unfairly) cobbled together various sections of various references in an attempt to support a rejection of claim 8. In other words, under the Examiner's tenuous rejection of claim 8, the Examiner has used (i) Ullman for its purported disclosure of a double-grooved drive roller (6,8); (ii) Kokaji for its purported disclosure of a plating (e.g., chromium) on fixing rollers (41,42) which secondarily drive a sheet of paper; (iii) McBride for its purported disclosure of a nickel plating on a roll (18); and (iv) Kokaji for its purported disclosure of a chromium protecting film having a thickness or depth of 0.1 to 10μ being deposited onto magnetic film of printer recording drum 21. However, even with these four (4) separate teachings, the Examiner still has not shown wire feeder drive rollers having a plating of nickel with a thickness in the range specified in claim 8. The disclosure of a chromium film of a specified thickness on a recording drum 21 of a printer device is insufficient to show a nickel plating of about 0.0001 inches to about 0.0030 inches on a drive roller of a wire feeder. The Examiner has made no connection (nor even an attempted connection) between the recording drum 21 and the fixing rollers 41,42; therefore, any film/plating provided on the drum 21 is immaterial to a plating of the fixing rollers.

In addition, as with dependent claim 7, Applicant/Appellant asserts that the triple combination of references applied against claim 8 is improper. In particular, the three references are directed toward non-analogous art and motivation to combine the references (including combining Kokaji with McBride; Kokaji with Ullman; and McBride with Ullman and Kokaji) is lacking and has not been adequately shown by the Examiner.

Accordingly, for this additional reason, the Examiner's rejection of claim 8 must be reversed.

I. Independent Claim 12 Is In Condition For Allowance

1. The Examiner's Rejection of Claim 12 As Being Anticipated By Kokaji et al. Must Be Reversed

Claim 12 calls for a plating to be on an outer surface of a drive roller hub for use in a wire feeding mechanism. Claim 12 further calls for the plating to tangentially and compressively contact an associated continuous length of wire to advance said wire through the wire feeding mechanism. Like claim 1, the Examiner first rejects claim 12 as being anticipated by Kokaji alone. In the recent Office Action, the Examiner specifically indicates that claim 12 is rejected as being anticipated by Kokaji "for the reasons set forth in Paragraph 9)" of the Office Action of September 24, 2004. *Office Action of January 28, 2005* at pg. 2.

Paragraph 9 of the September 24, 2004 Office Action indicates that the preamble of claim 12 calling "for use on a wire feeding mechanism" was a suggested use and therefore "of no patentable significance." *Office Action of September 24, 2004* at pg. 4. The Examiner appears to be completely ignoring the limitation in the body of the claim calling for the plating to tangentially and compressively contact an associated continuous length of wire. Like the limitation in claim 1, this limitation is not merely contained in the preamble, nor does this limitation merely suggest a use. Rather, this limitation expressly calls for the plating of claim 12 to tangentially and compressively contact an associated continuous length of wire.

Since Kokaji is not remotely concerned with a wire feeding mechanism, it is not surprising that the roller 42 disclosed therein fails to include a plating that tangentially and compressively contacts an associated continuous length of wire. Since this express limitation, which is contained in the body of the claim and is not merely a suggested use, is entirely missing from Kokaji, Applicant/Appellant submits that Kokaji cannot be used to anticipate claim 12. Accordingly, for at least this reason, Applicant/Appellant submits that the anticipation rejection of claim 12 under Kokaji must be reversed.

2. The Examiner's Rejection of Claim 12 As Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Like claim 1, claim 12 was also rejected as being obvious over the combination of Ullman and Kokaji. As discussed in reference to claim 1, Applicant/Appellant challenges the properness of the Ullman and Kokaji combination on grounds that the references are directed toward nonanalogous art and that adequate motivation to combine these references has not been shown. Applicant's/Applicant's arguments concerning these references being directed toward nonanalogous art and the failure to show proper motivation to combine these references, discussed at length above, are incorporated herein.

For at least these reasons, Applicant/Appellant submits that the Examiner's obviousness rejection of claim 12 must be reversed.

J. Dependent Claim 15 Is In Condition For Allowance

1. Dependent Claim 15 Should Be Allowed Due to Its Dependency From Claim 12

Provided the Examiner's rejections of claim 12 are overturned, Applicant/Appellant submits that claim 15 is in condition for allowance simply because this claim depends from claim 12.

2. The Examiner's Rejections of Dependent Claim 15 As Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Dependent claim 15 calls for the plating of claim 12 to be a chrome alloy. In the final Office Action, the Examiner rejected claim 15 as being obvious over Ullman in view of Kokaji "for the reasons set forth in Paragraph 14) of the previous Office Action," referring to the Office Action of September 24, 2004 as the previous Office Action. *Office Action of January 28, 2005* at pg. 2. In the previous Office Action, the Examiner asserts that to make the chrome plating a chrome alloy "would have been an obvious design consideration to one of ordinary skill in the art since most metals are not completely made of one material when used as coatings or plating and the use of such

alloys are old and well known to persons of ordinary skill in the art." *Office Action of September 24, 2004* at pg 4.

Applicant/Appellant respectfully challenges the Examiner's obviousness rejection concerning claim 15. As already discussed, a *prima facie* case of obviousness requires the Examiner and puts the burden on the Examiner to show motivation. *See* MPEP § 706.02(j). As discussed in reference to claim 2, the Examiner has not given an adequate reason to demonstrate why one skilled in the art would provide a wire feeding drive roller with a plating, particularly a plating that is a chrome alloy. Merely stating that this is an obvious design consideration is not enough. The Examiner must show why these limitations are "obvious design considerations" and why such a design consideration is obvious to one skilled in the art.

Since such a showing is absent, Applicant/Appellant submits that the Examiner's rejection of dependent claim 15 must be reversed.

K. Dependent Claim 16 Is In Condition For Allowance

1. Dependent Claim 16 Should Be Allowed Due to Its Dependency From Claim 12

Provided the Examiner's rejections of claim 12 are overturned, Applicant/Appellant submits that claim 16 is in condition for allowance simply because this claim depends from claim 12.

2. The Examiner's Rejections of Dependent Claim 16 As Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Dependent claim 16 calls for the chrome plating of claim 15 to have about 96% and about 97% chromium. In rejecting claim 16, the Examiner makes the conclusory allegation that "the amount of chrome in such an alloy ... would have been obvious to one or ordinary skill in the art for the same reason. . *Office Action of September 24, 2004* at pg 4. The final Office Action merely refers back to the pertinent paragraph of the September Office Action. *Office Action of January 28, 2005* at pg. 2.

Applicant/Appellant challenges the Examiner's obviousness rejection concerning this claim. As already discussed, a *prima facie* case of obviousness requires the

Examiner to show motivation. This is the Examiner's burden. *See* MPEP § 706.02(j). The Examiner has yet to give an adequate reason to demonstrate why one skilled in the art would provide a wire feeding drive roller with a plating, particularly a plating that is a chrome alloy having between about 96% and about 97% chromium. Merely stating that this is an obvious design consideration is not enough. The Examiner must show why these limitations are "obvious design considerations" and why such a design consideration is obvious to one skilled in the art.

Since such a showing is absent, Applicant/Appellant submits that the rejection of dependent claim 16 must be reversed.

L. Dependent Claim 17 Is In Condition For Allowance

1. Dependent Claim 17 Should Be Allowed Due to Its Dependency From Claim 12

Provided the Examiner's rejections of claim 12 are overturned, Applicant/Appellant submits that claim 17 is in condition for allowance simply because this claim depends from claim 12.

2. The Examiner's Rejections of Dependent Claim 17 As Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Similar to dependent claim 4 (dependent from claim 1), claim 17 calls for the plating of claim 12 to have a hardness of about Rockwell C 70 to about Rockwell C 72. Claim 17 was rejected together with and given the same reasoning as rejected claim 4.

As stated above, Applicant/Appellant concedes that Kokaji mentions that fixing rollers 41,42 should have a high hardness, preferably higher than $60H_{RC}$. *Kokaji* at Col. 13, lines 11-13. However, Kokaji further states, in an example, the surface of the fixing rollers is hardened into hardness of more than 61 H_{RC} and the fixing roller surface is plated with hard chromium. *Kokaji* at Col. 13, lines 14-17 (emphasis added). There is no mention of the specific hardness of the hard chromium plating. Thus, the use of Kokaji to reject dependent claim 17 must be reversed because Kokaji only specifies a hardness as relates to the surface of the rollers 41,42. This surface is said to be further

plated with a hard chromium. No mention of a specific hardness, such as about Rockwell C 70 to about Rockwell C 72 is found anywhere in Kokaji.

Further, unlike claim 4, the Examiner must prove that it is obvious to provide the specified hardness of claim 17 to a chrome alloy plating (claims 12 and 15) having about 96% and about 97% chromium (claim 16). In other words, to reject claim 17, the Examiner must show that it is obvious to provide (i) a plating on an outer surface of a drive roller hub where said plating tangentially and compressively contacts an associated continuous length of wire, (ii) wherein the plating is a chrome alloy (iii) having between about 96% and about 97% chromium and (iv) a hardness of about Rockwell C 70 to about Rockwell C 72. Applicant/Appellant submits that the Examiner has not and cannot support his obviousness rejection of claim 17.

Accordingly, for at least these reasons, the rejection of claim 17 must be reversed.

M. Dependent Claims 18 and 22-24 Are In Condition For Allowance

1. Dependent Claims 18 and 22-24 Should Be Allowed Due to Their Dependency From Claim 12

Provided the Examiner's rejections of claim 12 are overturned, Applicant/Appellant submits that claim 18 is in condition for allowance simply because these claims depend from claim 12.

2. The Examiner's Rejections of Dependent Claim 18 As Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Similar to dependent claim 5 (dependent from claim 1), claim 18 calls for the plating of claim 12 to have a thickness of about 0.0004 inches to about 0.0006 inches. Claim 18 was rejected together with and given the same reasoning as rejected claim 5. For the same reasons as discussed above in reference to claim 5, Applicant/Appellant submits that the Examiner's rejection of claim 18 must be reversed.

In addition, unlike claim 5, the Examiner must prove that it is obvious to provide the specified plating thickness to a plating as specified in claim 12 that is a chrome alloy as specified in claim 15, has about 96% and about 97% chromium as specified in claim

16, and has the hardness specified in claim 17. Applicant/Appellant submits that the Examiner has not and cannot support his obviousness rejection of claim 17. In particular, the Examiner has not shown why it would be obvious to have a plating of a specified thickness, of a chrome alloy, of a specified hardness, **and** having about 96% and about 97% chromium.

Accordingly, for at least these reasons, the rejection of claim 18 must be reversed.

3. Dependent Claims 22-24 Should Be Allowed Due to Their Dependency From Claim 18

Provided the Examiner's rejections of claim 18 are overturned, Applicant/Appellant submits that claims 22-24 are in condition for allowance simply because these claims depend from claim 18.

N. Dependent Claim 19 Is In Condition For Allowance

1. Dependent Claim 19 Should Be Allowed Due to Its Dependency From Claim 12

Provided the Examiner's rejections of claim 12 are overturned, Applicant/Appellant submits that claim 19 is in condition for allowance simply because this claim depends from claim 12.

2. The Examiner's Rejections of Dependent Claim 19 As Obvious Over Ullman in View of Kokaji and Further in view of McBride Must Be Reversed

Dependent claim 19 was rejected over the triple combination of Ullman, Kokaji and McBride along with dependent claim 6 and for the same reasons as dependent claim 6. As with claim 6, Applicant/Appellant asserts that this triple combination of references used to reject claim 19 is improper. As already discussed herein, Applicant/Appellant asserts that the combination of Ullman and Kokaji is improper for at least the reasons of being directed toward nonanalogous art and lacking motivation to combine. The arguments presented herein in this regard are applicable to the

combination of these references as applied to claim 19 and, accordingly, are incorporated into this paragraph by reference. The addition of McBride does not render the combination proper, but rather improperly adds a third reference. As with Ullman and Kokaji, Applicant/Appellant asserts that McBride is directed toward nonanalogous art (moving a plastic sheet material used by the greeting card industry is not remotely similar to wire feeding mechanisms) and asserts that motivation to add McBride is lacking and has not been provided by the Examiner. Accordingly, the rejection of claim 19 must be reversed.

O. Dependent Claim 20 Is In Condition For Allowance

1. Dependent Claim 20 Should Be Allowed Due to Its Dependency From Claim 12

Provided the Examiner's rejections of claim 12 are overturned, Applicant/Appellant submits that claim 20 is in condition for allowance simply because this claim depends from claim 12.

2. The Examiner's Rejections of Dependent Claim 20 As Obvious Over Ullman in View of Kokaji and Further in view of McBride Must Be Reversed

Dependent claim 20 calls for the nickel plating of claim 19 to have a hardness of approximately Rockwell C 60. In the final Office Action, the Examiner rejected claim 20, along with dependent claim 6 discussed above, and stated that "[i]t would have been obvious to one of ordinary skill in the art to make the hardness of the roller of McBride approximately Rockwell C 60 as recited in claim 7 . . . as taught by Kokaji et al, col. 13, lines 13 . . . . Such . . . hardness' of plated rollers are will within the purview and knowledge of one or ordinary skill in the art." *Office Action of January 28, 2005* at pg. 5.

As discussed in more detail in reference to claim 6 (that discussion is incorporated herein by reference), Applicant/Appellant respectfully asserts that the Examiner's logic is flawed and that the combination fails to render claim 20 obvious. Accordingly, for at least this reason, the Examiner's rejection of claim 7 must be reversed.

In addition, as discussed in the preceding section, Applicant/Appellant asserts that the triple combination of references applied against claim 20 is improper. In particular, the three references are directed toward non-analogous art and motivation to combine the references (including combining Kokaji with McBride; Kokaji with Ullman; and McBride with Ullman and Kokaji) is lacking and has not been adequately shown by the Examiner.

Accordingly, for this additional reason, the Examiner's rejection of claim 20 must be reversed.

P. Dependent Claim 21 Is In Condition For Allowance

1. Dependent Claim 21 Should Be Allowed Due to Its Dependency From Claim 12

Provided the Examiner's rejections of claim 12 are overturned, Applicant/Appellant submits that claim 21 is in condition for allowance simply because this claim depends from claim 12.

2. The Examiner's Rejections of Dependent Claim 21 As Obvious Over Ullman in View of Kokaji and Further in view of McBride Must Be Reversed

Dependent claim 21 calls for the nickel plating of claim 20 to have a thickness of about 0.0001 inches to about 0.0030 inches. Claim 20 was rejected under the same reasoning as was dependent claim 8 (discussed above). As discussed above, Kokaji does not disclose or fairly suggest a nickel plating; thus, Applicant/Appellant submits it cannot be fairly used to show or suggest a nickel plating of a particular thickness, including within the range specified in claim 21. Moreover, the section of Kokaji cited by the Examiner (i.e., col. 7, line 54) relates to a plating provided on recording drum 21, not a plating provided on alleged drive rollers 41,42. The plating described in or near line 54 of column 7 is said to improve wear-resistance of the recording drum 21, but, again, this drum is not the alleged drive rollers 41,42. Accordingly, for the reasons discussed in reference to claim 8, Applicant/Appellant submits that the rejection of claim 21 must be reversed.

Still further, claim 21 depends from claim 20. Thus, the Examiner must show that it is obvious to provide a nickel plating having the hardness specified in claim 20 AND the thickness specified in claim 21. Merely showing that one or the other is obvious is not enough. The Examiner has the burden of showing that both claimed limitations are obvious. Applicant/Appellant submits that this has not been done and accordingly, the rejection of clam 21 must be reversed.

Also, as with dependent claim 20, Applicant/Appellant asserts that the triple combination of references applied against claim 21 is improper. In particular, the three references are directed toward non-analogous art and motivation to combine the references (including combining Kokaji with McBride; Kokaji with Ullman; and McBride with Ullman and Kokaji) is lacking and has not been adequately shown by the Examiner. Accordingly, for this additional reason, the Examiner's rejection of claim 21 must be reversed.

Q. Independent Claim 13 and Dependent Claim 14 Are In Condition For Allowance

1. The Examiner's Rejection of Claim 13 As Being Obvious Over Ullman in View of Kokaji Must Be Reversed

Claim 13 was rejected only as being obvious over Ullman in view of Kokaji. Like claims 1 and 12, Applicant/Appellant challenges the combination of references applied against claim 13 and asserts that the combination is improper. Applicant's/Appellant's arguments concerning these references being directed toward nonanalogous art and the Examiner's failure to show proper motivation to combine these references, discussed at length above, are incorporated herein in response to the Examiner's obviousness rejection concerning claim 13. For at least these reasons, the rejection of claim 13 must be reversed.

2. Dependent Claim 14 Should Be Allowed When Claim 13 Is Allowed

Provided the Examiner's rejections of claim 13 are overturned, Applicant/Appellant submits that claim 14 is in condition for allowance simply because this claim depends from claim 13.

CONCLUSION

In view of the above, Appellant respectfully submits that claims 1-24 are not anticipated or rendered obvious by the applied art. More particularly, for the reasons set forth above and the more detailed discussion of the reasons for the patentability of each of the claims set forth in the responses of December 2, 2004 and April 28, 2005, Appellants respectfully request the Board of Appeals to reverse each rejection of the Examiner.

Respectfully submitted,

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Dated: Jan 18, 2006

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APPENDIX (37 C.F.R. §41.37(c)(1)(viii))

1. A drive roller for use on a wire feeding mechanism to advance a continuous length of wire, said drive roller comprising:

a hub rotatably received on the wire feeding mechanism, said hub having an axis and an outer surface extending circumferentially about said axis; and

a plating on said outer surface and extending circumferentially thereabout.

2. The drive roller of claim 1 wherein said plating is a chrome alloy.

3. The drive roller of claim 2 wherein said chrome alloy has between about 96% and about 97% chromium.

4. The drive roller of claim 2 wherein said plating has a hardness of about Rockwell C 70 to about Rockwell C 72.

5. The drive roller of claim 2 wherein said plating has a thickness of about 0.0004 inches to about 0.0006 inches.

6. The drive roller of claim 1 wherein said plating is a nickel coating.

7. The drive roller of claim 6 wherein said plating has a hardness of approximately Rockwell C 60.

8. The drive roller of claim 6 wherein said plating has a thickness of about 0.0001 inches to about 0.0030 inches.

9. The drive roller of claim 1 wherein said outer surface includes a first groove extending circumferentially therearound.

10. The drive roller of claim 9 wherein said outer surface includes a second groove extending circumferentially therearound for use when said first groove is sufficiently worn.

11. The drive roller of claim 9 wherein said groove is one of U-shaped and V-shaped.

12. A drive roller for use on a wire feeding mechanism to advance a continuous length of wire, said drive roller comprising:

a hub having an axis and an outer surface extending circumferentially about said axis; and

a plating on said outer surface extending circumferentially thereabout, said plating tangentially and compressively contacting an associated continuous length of wire.

13. A wire feeding mechanism for advancing a continuous length of wire along a pathway, said wire feeding mechanism comprising:

a housing having two roller supports each rotatable about a corresponding axis transverse to said pathway, said roller supports being on opposite sides of said pathway and being driveably engaged with each other;

a drive roller on each roller support for rotation therewith and having a roller axis coaxial with the axis of the corresponding roller support, each said driver roller including a hub having an outer surface extending circumferentially about said roller axis, and one of a plating and a coating on said outer surface; and

said one of a plating and a coating of each of said drive rollers tangentially and compressively contacting a continuous length of wire therebetween such that the wire is advanced along said pathway in response to the rotation of said drive rollers.

14. The wire feeding mechanism of claim 13, wherein at least one of said drive rollers is radially adjustably positionable relative to said pathway.

15. The drive roller of claim 12, wherein said plating is a chrome alloy.

16. The drive roller of claim 15 wherein said chrome alloy has between about 96% and about 97% chromium.

17. The drive roller of claim 16 wherein said plating has a hardness of about Rockwell C 70 to about Rockwell C 72.

18. The drive roller of claim 17 wherein said plating has a thickness of about 0.0004 inches to about 0.0006 inches.

19. The drive roller of claim 12 wherein said plating is a nickel coating.

20. The drive roller of claim 19 wherein said plating has a hardness of approximately Rockwell C 60.

21. The drive roller of claim 20 wherein said plating has a thickness of about 0.0001 inches to about 0.0030 inches.

22. The drive roller of claim 18 wherein said outer surface includes a first groove extending circumferentially therearound.

23. The drive roller of claim 22 wherein said outer surface includes a second groove extending circumferentially therearound for use when said first groove is sufficiently worn.

24. The drive roller of claim 22 wherein said groove is V-shaped.

25. (Withdrawn) A method of imparting wear-resistance to a drive roller for use on a wire feeding mechanism to advance a continuous length of wire, said method comprising the steps of:

providing a drive roller having a hub with an axis and an outer surface extending circumferentially about said axis;

liquid honing said outer surface to prepare said outer surface for a chrome alloy plating; and

electrolyzing said drive roller outer surface to apply said chrome alloy thereto.

IX. EVIDENCE APPENDIX 37 C.F.R. § 41.37(c)(1)(ix)

NONE

X. RELATED PROCEEDINGS APPENDIX 37 C.F.R. § 41.37(c)(1)(x)

NONE